

PATENT COOPERATION TREATY

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference P13058-PCT	FOR FURTHER ACTION	see Form PCT/ISA/220 as well as, where applicable, item 5 below.
International application No. PCT/KR2005/000743	International filing date (day/month/year) 15 MARCH 2005 (15.03.2005)	(Earliest) Priority Date (day/month/year) 15 MARCH 2004 (15.03.2004)
Applicant SAMSUNG ELECTRONICS CO., LTD. et al		

This International search report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This international search report consists of a total of 3 sheets.

It is also accompanied by a copy of each prior art document cited in this report.

1. Basis of the report

a. With regard to the language, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

The international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

b. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, see Box No. I.

2. Certain claims were found unsearchable (See Box No. II)

3. Unity of invention is lacking (See Box No. III)

4. With regard to the title,

the text is approved as submitted by the applicant.

the text has been established by this Authority to read as follows:

5. With regard to the abstract,

the text is approved as submitted by the applicant.

the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box No. IV. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. With regard to the drawings,

a. the figure of the drawings to be published with the abstract is Figure No. 1

as suggested by the applicant.

because the applicant failed to suggest a figure.

because this figure better characterizes the invention.

b. none of the figure is to be published with the abstract.

INTERNATIONAL SEARCH REPORT

International application No.
PCT/KR2005/000743

A. CLASSIFICATION OF SUBJECT MATTER

IPC7 H04B 1/40

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC7 H04B 1/40 52, H04H 7/46

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
search terms : mobile terminal, cellular phone, multiband, near-zero intermediate frequency

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 20030181167 A1 25 Sep. 2003 (SONY Corp.) claims 1-5	1-20, 32, 33
Y	GB 200229971 A0 29 Jan. 2003 (ZARLINK SEMICONDUCTOR Ltd.) claims 1-9	1-20
A	US 20030092397 A1 15 May 2003 (MATSUSHITA ELECTRIC INDUSTRIAL Co.) claims 1-5, 10	1-20, 32
A	US 2003008693 A1 9 Jan. 2003 (MATSUSHITA ELECTRIC INDUSTRIAL Co.) claims 1-12, 14	1-20, 32
A	GB 2372162 A1 14 Aug. 2002 (ZARLINK SEMICONDUCTOR Ltd.) claims 1-10	1-20

 Further documents are listed in the continuation of Box C. See patent family annex.

Special categories of cited documents:	
"A" document defining the general state of the art which is not considered to be of particular relevance	"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"E" earlier application or patent but published on or after the international filing date	"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of citation or other special reason (as specified)	"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"O" document referring to an oral disclosure, use, exhibition or other means	"&" document member of the same patent family
"P" document published prior to the international filing date but later than the priority date claimed	

Date of the actual completion of the international search 16 JUNE 2005 (16.06.2005)	Date of mailing of the international search report 18 JUNE 2005 (18.06.2005)
Name and mailing address of the ISA/KR  Korean Intellectual Property Office 920 Dunsan-dong, Seo-gu, Daejeon 302-701, Republic of Korea	Authorized officer JEONG, Jae Woo Telephone No. 82-42-481-5718
Facsimile No. 82-42-472-7140	

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No.

PCT/KR2005/000743

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 20030181167 A1	25 Sep. 2003	EP 1265370 A1 WO 02/067451 A1	11 Dec. 2002 29 Aug. 2002
GB 200229971 A0	29 Jan. 2003	US 20040230999 A1	18 Dec. 2004
US 20030092397 A1	15 May 2003	EP 1311063 A2	11 Nov. 2002
US 20030008693 A1	9 Jan. 2003	EP 1258940 A2	15 May 2002
GB 2372162 A1	14 Aug. 2002	US 20020075950 A1	20 June 2002